



# Electronic Filing System (EFS) Data Electronic Patent Application Submission USPTO Use Only

EFS ID:

64595

**Application ID:** 

10683542

Title of Invention:

Controlling Access to Multiple Memory Zones in an Isolated

**Execution Environment** 

First Named Inventor:

Carl Ellison

Domestic/Foreign Application:

**Domestic Application** 

Filing Date:

2003-10-10

**Effective Receipt Date:** 

2004-07-15

Submission Type:

Information Disclosure

Statement

Filing Type:

Confirmation number:

2621

**Attorney Docket Number:** 

42P09654C

**Total Fees Authorized:** 

Digital Certificate Holder: cn=William Thomas Babbitt,ou=Registered Attorneys,ou=Patent and

Trademark Office,ou=Department of Commerce,o=U.S. Government,c=US Certificate Message Digest: 6c630754e1391775103a38065de4192332b16f5c



#### **TRANSMITTAL**

TRADE Electronic Version v1.1

Stylesheet Version v1.1.0

Title of Invention

Controlling Access to Multiple Memory Zones in an Isolated Execution Environment

**Application Number:** 

10/683542

Date:

2003-10-10

First Named Applicant:

Carl Ellison

Confirmation Number:

2621

Attorney Docket Number: 42P09654C

I hereby certify that the use of this system is for OFFICIAL correspondence between patent applicants or their representatives and the USPTO. Fraudulent or other use besides the filing of official correspondence by authorized parties is strictly prohibited, and subject to a fine and/or imprisonment under applicable law.

I, the undersigned, certify that I have viewed a display of document(s) being electronically submitted to the United States Patent and Trademark Office, using either the USPTO provided style sheet or software, and that this is the document(s) I intend for initiation or further prosecution of a patent application noted in the submission. This document(s) will become part of the official electronic record at the USPTO.

Submitted by:	Elec. Sign.	Sign. Capacity
William Thomas Babbitt Registered Number: 39591	William Thomas Babbitt	Attorney

Documents being submitted

Files

us-ids

42P09654C-usidst.xml

us-ids.dtd

us-ids.xsl

Comments



## **ELECTRONIC INFORMATION DISCLOSURE STATEMENT**

TRADE Prectronic Version v18

Stylesheet Version v18.0

Title of Invention

Controlling Access to Multiple Memory Zones in an Isolated Execution Environment

**Application Number:** 

10/683542

**Confirmation Number:** 

2621

First Named Applicant:

Carl Ellison

Attorney Docket Number: 42P09654C

Art Unit:

2186

**Examiner:** 

Behzad Peikari

Search string:

(20010027511 or 20020007456 or

20020023032 or 20020147916 or 20020166061

or 20020169717 or 20030074548 or

20030115453 or 20030126442 or 20030126453

or 20030159056 or 20030188179 or

20030196085 or 20040117539 or 3699532 or 3996449 or 4207609 or 4319233 or 4403283 or 4419724 or 4430709 or 4802084 or 4975836 or 5187802 or 5230069 or 5237616 or 5287363 or 5295251 or 5361375 or 5469557 or 5506975 or 5555385 or 5555414 or 5560013 or 5564040 or 5574936 or 5582717 or 5604805 or 5633929 or 5668971 or 5684948 or 5706469 or 5740178 or 5752046 or 5809546 or 5825880 or 5919257 or 5935242 or 5935247 or 5956408 or 5978475 or 6035374 or 6044478 or 6088262 or 6093213 or 6108644 or 6131166 or 6173417 or 6175924 or 6188257 or 6199152 or 6275933 or 6282650 or 6327652 or 6378068 or 6397379 or 6529909 or 6560627 or 6609199 or 6615278 or 6651171 or

### **US Patent Documents**

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

6678825 or 6684326 ).pn.

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
	1	20010027511	2001-10-04	Wakabayashi, Masaki , et al.	]		
	2	20020007456	2002-01-17	Peinado, Marcus , et al.			
	3	20020023032	2002-02-21	Pearson, Siani L., et al.	]		

4         20020147916         2002-10-10         Strongin, Geoffrey S., et al.           5         20020166061         2002-11-07         Falik, Ohad , et al.           6         20020169717         2002-11-14         Challener, David C.           7         20030074548         2003-04-17         Cromer, Daryl C., et al.           8         20030115453         2003-06-19         Grawrock, David W.           9         20030126442         2003-07-03         Glew, Andrew F., et al.           10         20030126453         2003-07-03         Glew, Andrew F., et al.           11         20030159056         2003-08-21         Cromer, Daryl C., et al.           12         20030188179         2003-10-02         Challener, David C., et al.           13         20030196085         2003-10-16         Lampson, Butler W., et al.           14         20040117539         2004-06-17         Bennett, Steve, et al.           15         3699532         1972-10-17         Attanasio, Clement R., et al.           16         3996449         1976-12-07         Attanasio, Clement R., et al.           17         4207609         1980-06-10         Luiz, Fernando A., et al.           18         4319233         1982-03-09         Myntti, Jon N., et al. </th <th></th> <th></th> <th></th> <th></th>					
6         20020169717         2002-11-14         Challener, David C.           7         20030074548         2003-04-17         Cromer, Daryl C., et al.           8         2003015453         2003-06-19         Grawrock, David W.           9         20030126442         2003-07-03         Glew, Andrew F., et al.           10         20030126453         2003-07-03         Glew, Andrew F., et al.           11         20030188179         2003-10-02         Challener, David C., et al.           12         20030188179         2003-10-02         Challener, David C., et al.           13         20030196085         2003-10-16         Lampson, Butler W., et al.           14         20040117539         2004-06-17         Bennett, Steve, et al.           15         3699532         1972-10-17         Schaffer, Harry G., et al.           16         3996449         1976-12-07         Attanasio, Clement R., ét al.           17         4207609         1980-06-10         Luiz, Fernando A., et al.           18         4319233         1982-03-09         Matsuoka, Michibiro, et al.           19         4403283         1983-09-06         Myntti, Jon N., et al.           20         4419724         1983-12-06         Branigin, Michael H., et al. <td>4</td> <td>20020147916</td> <td>2002-10-10</td> <td>Strongin, Geoffrey S., et al.</td>	4	20020147916	2002-10-10	Strongin, Geoffrey S., et al.	
7         20030074548         2003-04-17         Cromer, Daryl C., et al.           8         20030115453         2003-06-19         Grawrock, David W.           9         20030126442         2003-07-03         Glew, Andrew F., et al.           10         20030126453         2003-07-03         Glew, Andrew F., et al.           11         20030159056         2003-08-21         Cromer, Daryl C., et al.           12         20030188179         2003-10-02         Challener, David C., et al.           13         20030196085         2003-10-16         Lampson, Butler W., et al.           14         20040117539         2004-06-17         Bennett, Steve, et al.           15         3699532         1972-10-17         Schaffer, Harry G., et al.           16         3996449         1976-12-07         Attanasio, Clement R., et al.           17         4207609         1980-06-10         Luiz, Fernando A., et al.           18         4319233         1982-03-09         Matsuoka, Michihiro , et al.           19         4403283         1983-09-06         Myntti, Jon N., et al.           20         4419724         1983-12-06         Branigin, Michael H., et al.           21         4430709         1984-02-07         Schleupen, Richard , et al.	5	20020166061	2002-11-07	Falik, Ohad , et al.	
8         20030115453         2003-06-19         Grawrock, David W.           9         20030126442         2003-07-03         Glew, Andrew F., et al.           10         20030126453         2003-07-03         Glew, Andrew F., et al.           11         20030159056         2003-08-21         Cromer, Daryl C., et al.           12         20030188179         2003-10-02         Challener, David C., et al.           13         20030196085         2003-10-16         Lampson, Butler W., et al.           14         20040117539         2004-06-17         Bennett, Steve , et al.           15         3699532         1972-10-17         Schaffer, Harry G., et al.           16         3996449         1976-12-07         Attanasio, Clement R., ét al.           17         4207609         1980-06-10         Luiz, Fernando A., et al.           18         4319233         1982-03-09         Matsuoka, Michihiro , et al.           19         4403283         1983-09-06         Myntti, Jon N., et al.           20         4419724         1983-12-06         Branigin, Michael H., et al.           21         4430709         1984-02-07         Schleupen, Richard , et al.           22         4802084         1989-01-31         Ikegaya, Hiroshi , et al.	6	20020169717	2002-11-14	Challener, David C.	
9 20030126442 2003-07-03 Glew, Andrew F., et al. 10 20030126453 2003-07-03 Glew, Andrew F., et al. 11 20030159056 2003-08-21 Cromer, Daryl C., et al. 12 20030188179 2003-10-02 Challener, David C., et al. 13 20030196085 2003-10-16 Lampson, Butler W., et al. 14 20040117539 2004-06-17 Bennett, Steve , et al. 15 3699532 1972-10-17 Schaffer, Harry G., et al. 16 3996449 1976-12-07 Attanasio, Clement R., et al. 17 4207609 1980-06-10 Luiz, Fernando A., et al. 18 4319233 1982-03-09 Matsuoka, Michihiro , et al. 19 4403283 1983-09-06 Myntti, Jon N., et al. 20 4419724 1983-12-06 Branigin, Michael H., et al. 21 4430709 1984-02-07 Schleupen, Richard , et al. 22 4802084 1989-01-31 Ikegaya, Hiroshi , et al. 23 4975836 1990-12-04 Hirosawa, Toshio , et al. 24 5187802 1993-02-16 Brelsford, David P., et al. 25 5230069 1993-02-16 Brelsford, David P., et al. 26 5237616 1993-08-17 Abraham, Dennis G., et al. 27 5287363 1994-02-15 Wolf, Paul I., et al. 28 5295251 1994-03-15 Wakui, Fujio , et al. 29 5361375 1994-11-01 Ogi, Yoshifumi 30 5469557 1995-11-21 Salt, Tom , et al. 31 5506975 1996-04-09 Onodera, Osama 32 5555385 1996-09-10 Osisek, Damian L. 33 555414 1996-09-10 Hough, Roger E., et al. 34 5560013 1996-09-24 Scalzi, Casper A., et al. 35 5564040 1996-10-08 Kubala, Jeffrey P. 36 5574936 1996-11-12 Ryba, Edward G., et al.	7	20030074548	2003-04-17	Cromer, Daryl C., et al.	
10   20030126453   2003-07-03   Glew, Andrew F., et al.     11   20030159056   2003-08-21   Cromer, Daryl C., et al.     12   20030188179   2003-10-02   Challener, David C., et al.     13   20030196085   2003-10-16   Lampson, Butler W., et al.     14   20040117539   2004-06-17   Bennett, Steve , et al.     15   3699532   1972-10-17   Schaffer, Harry G., et al.     16   3996449   1976-12-07   Attanasio, Clement R., ét al.     17   4207609   1980-06-10   Luiz, Fernando A., et al.     18   4319233   1982-03-09   Matsuoka, Michihiro , et al.     19   4403283   1983-09-06   Myntti, Jon N., et al.     20   4419724   1983-12-06   Branigin, Michael H., et al.     21   4430709   1984-02-07   Schleupen, Richard , et al.     22   4802084   1989-01-31   Ikegaya, Hiroshi , et al.     23   4975836   1990-12-04   Hirosawa, Toshio , et al.     24   5187802   1993-02-16   Brelsford, David P., et al.     25   5230069   1993-02-16   Brelsford, David P., et al.     26   5237616   1993-08-17   Abraham, Dennis G., et al.     27   5287363   1994-02-15   Wolf, Paul I., et al.     28   5295251   1994-03-15   Wakui, Fujio , et al.     29   5361375   1994-11-01   Ogi, Yoshifumi     30   5469557   1995-11-21   Salt, Tom , et al.     31   5506975   1996-04-09   Onodera, Osama     32   5555385   1996-09-10   Osisek, Damian L.     33   5554040   1996-10-08   Kubala, Jeffrey P.     36   5574936   1996-11-12   Ryba, Edward G., et al.     37   5582717   1996-12-10   Di Santo, Dennis E.     38   5604805   1997-02-18   Brands, Stefanus A.	8	20030115453	2003-06-19	Grawrock, David W.	
11         20030159056         2003-08-21         Cromer, Daryl C., et al.           12         20030188179         2003-10-02         Challener, David C., et al.           13         20030196085         2003-10-16         Lampson, Butler W., et al.           14         2004017539         2004-06-17         Bennett, Steve, et al.           15         3699532         1972-10-17         Schaffer, Harry G., et al.           16         3996449         1976-12-07         Attanasio, Clement R., et al.           17         4207609         1980-06-10         Luiz, Fernando A., et al.           18         4319233         1982-03-09         Matsuoka, Michihiro, et al.           19         4403283         1983-09-06         Myntti, Jon N., et al.           20         4419724         1983-12-06         Branigin, Michael H., et al.           21         4430709         1984-02-07         Schleupen, Richard, et al.           22         4802084         1989-01-31         Ikegaya, Hiroshi, et al.           23         4975836         1990-12-04         Hirosawa, Toshio, et al.           24         5187802         1993-02-16         Brelsford, David P., et al.           25         523069         1993-08-17         Abraham, Dennis G., et al. <td>9</td> <td>20030126442</td> <td>2003-07-03</td> <td>Glew, Andrew F., et al.</td>	9	20030126442	2003-07-03	Glew, Andrew F., et al.	
12   20030188179   2003-10-02   Challener, David C., et al.     13   20030196085   2003-10-16   Lampson, Butler W., et al.     14   20040117539   2004-06-17   Bennett, Steve, et al.     15   3699532   1972-10-17   Schaffer, Harry G., et al.     16   3996449   1976-12-07   Attanasio, Clement R., et al.     17   4207609   1980-06-10   Luiz, Fernando A., et al.     18   4319233   1982-03-09   Matsuoka, Michihiro, et al.     19   4403283   1983-09-06   Myntti, Jon N., et al.     20   4419724   1983-12-06   Branigin, Michael H., et al.     21   4430709   1984-02-07   Schleupen, Richard, et al.     22   4802084   1989-01-31   Ikegaya, Hiroshi, et al.     23   4975836   1990-12-04   Hirosawa, Toshio, et al.     24   5187802   1993-02-16   Brelsford, David P., et al.     25   5230069   1993-02-16   Brelsford, David P., et al.     26   5237616   1993-08-17   Abraham, Dennis G., et al.     27   5287363   1994-02-15   Wolf, Paul I., et al.     28   5295251   1994-03-15   Wakui, Fujio, et al.     29   5361375   1995-11-21   Salt, Tom, et al.     30   5469557   1995-11-21   Salt, Tom, et al.     31   5506975   1996-04-09   Onodera, Osama     32   5555385   1996-09-10   Osisek, Damian L.     33   5555414   1996-09-10   Hough, Roger E., et al.     34   5560013   1996-09-24   Scalzi, Casper A., et al.     37   5582717   1996-11-12   Ryba, Edward G., et al.     38   5604805   1997-02-18   Brands, Stefanus A.	10	20030126453	2003-07-03	Glew, Andrew F., et al.	
13         20030196085         2003-10-16         Lampson, Butler W., et al.           14         20040117539         2004-06-17         Bennett, Steve, et al.           15         3699532         1972-10-17         Schaffer, Harry G., et al.           16         3996449         1976-12-07         Attanasio, Clement R., et al.           17         4207609         1980-06-10         Luiz, Fernando A., et al.           18         4319233         1982-03-09         Matsuoka, Michihiro, et al.           19         4403283         1983-09-06         Myntti, Jon N., et al.           20         4419724         1983-12-06         Branigin, Michael H., et al.           21         4430709         1984-02-07         Schleupen, Richard, et al.           22         4802084         1989-01-31         Ikegaya, Hiroshi, et al.           23         4975836         1990-12-04         Hirosawa, Toshio, et al.           24         5187802         1993-02-16         Inoue, Taro, et al.           25         5230069         1993-02-16         Brelsford, David P., et al.           26         5237616         1993-02-15         Wolf, Paul I., et al.           27         5287363         1994-02-15         Wolf, Paul I., et al. <t< td=""><td>11</td><td>20030159056</td><td>2003-08-21</td><td>Cromer, Daryl C., et al.</td></t<>	11	20030159056	2003-08-21	Cromer, Daryl C., et al.	
14         20040117539         2004-06-17         Bennett, Steve , et al.           15         3699532         1972-10-17         Schaffer, Harry G., et al.           16         3996449         1976-12-07         Attanasio, Clement R., ét al.           17         4207609         1980-06-10         Luiz, Fernando A., et al.           18         4319233         1982-03-09         Matsuoka, Michihiro , et al.           19         4403283         1983-09-06         Myntti, Jon N., et al.           20         4419724         1983-12-06         Branigin, Michael H., et al.           21         4430709         1984-02-07         Schleupen, Richard , et al.           22         4802084         1989-01-31         Ikegaya, Hiroshi , et al.           23         4975836         1990-12-04         Hirosawa, Toshio , et al.           24         5187802         1993-02-16         Inoue, Taro , et al.           25         5230069         1993-02-16         Brelsford, David P., et al.           26         5237616         1993-08-17         Abraham, Dennis G., et al.           27         5287363         1994-02-15         Wolf, Paul I., et al.           28         5295251         1994-03-15         Wakui, Fujio , et al.	12	20030188179	2003-10-02	Challener, David C., et al.	
15         3699532         1972-10-17         Schaffer, Harry G., et al.           16         3996449         1976-12-07         Attanasio, Clement R., ét al.           17         4207609         1980-06-10         Luiz, Fernando A., et al.           18         4319233         1982-03-09         Matsuoka, Michihiro, et al.           19         4403283         1983-09-06         Myntti, Jon N., et al.           20         4419724         1983-12-06         Branigin, Michael H., et al.           21         4430709         1984-02-07         Schleupen, Richard, et al.           22         4802084         1989-01-31         Ikegaya, Hiroshi, et al.           23         4975836         1990-12-04         Hirosawa, Toshio, et al.           24         5187802         1993-02-16         Brelsford, David P., et al.           25         5230069         1993-02-16         Brelsford, David P., et al.           26         5237616         1993-08-17         Abraham, Dennis G., et al.           27         5287363         1994-02-15         Wolf, Paul I., et al.           28         5295251         1994-03-15         Wakui, Fujio, et al.           29         5361375         1994-11-01         Ogi, Yoshifumi           30	13	20030196085	2003-10-16	Lampson, Butler W., et al.	
16         3996449         1976-12-07         Attanasio, Clement R., ét al.           17         4207609         1980-06-10         Luiz, Fernando A., et al.           18         4319233         1982-03-09         Matsuoka, Michihiro, et al.           19         4403283         1983-09-06         Myntti, Jon N., et al.           20         4419724         1983-12-06         Branigin, Michael H., et al.           21         4430709         1984-02-07         Schleupen, Richard, et al.           22         4802084         1989-01-31         Ikegaya, Hiroshi, et al.           23         4975836         1990-12-04         Hirosawa, Toshio, et al.           24         5187802         1993-02-16         Inoue, Taro, et al.           25         5230069         1993-02-16         Brelsford, David P., et al.           26         5237616         1993-08-17         Abraham, Dennis G., et al.           27         5287363         1994-02-15         Wolf, Paul I., et al.           28         5295251         1994-03-15         Wakui, Fujio, et al.           29         5361375         1994-11-01         Ogi, Yoshifumi           30         5469557         1995-11-21         Salt, Tom, et al.           31         5506	14	20040117539	2004-06-17	Bennett, Steve, et al.	
17         4207609         1980-06-10         Luiz, Fernando A., et al.           18         4319233         1982-03-09         Matsuoka, Michihiro, et al.           19         4403283         1983-09-06         Myntti, Jon N., et al.           20         4419724         1983-12-06         Branigin, Michael H., et al.           21         4430709         1984-02-07         Schleupen, Richard, et al.           22         4802084         1989-01-31         Ikegaya, Hiroshi, et al.           23         4975836         1990-12-04         Hirosawa, Toshio, et al.           24         5187802         1993-02-16         Inoue, Taro, et al.           25         5230069         1993-02-16         Brelsford, David P., et al.           26         5237616         1993-08-17         Abraham, Dennis G., et al.           27         5287363         1994-02-15         Wolf, Paul I., et al.           28         5295251         1994-03-15         Wakui, Fujio, et al.           29         5361375         1994-03-15         Wakui, Fujio, et al.           30         5469557         1995-11-21         Salt, Tom, et al.           31         5506975         1996-04-09         Onodera, Osama           32         5555385	15	3699532	1972-10-17	Schaffer, Harry G., et al.	
18         4319233         1982-03-09         Matsuoka, Michihiro, et al.           19         4403283         1983-09-06         Myntti, Jon N., et al.           20         4419724         1983-12-06         Branigin, Michael H., et al.           21         4430709         1984-02-07         Schleupen, Richard, et al.           22         4802084         1989-01-31         Ikegaya, Hiroshi, et al.           23         4975836         1990-12-04         Hirosawa, Toshio, et al.           24         5187802         1993-02-16         Inoue, Taro, et al.           25         5230069         1993-02-16         Brelsford, David P., et al.           26         5237616         1993-08-17         Abraham, Dennis G., et al.           27         5287363         1994-02-15         Wolf, Paul I., et al.           28         5295251         1994-03-15         Wakui, Fujio, et al.           29         5361375         1994-11-01         Ogi, Yoshifumi           30         5469557         1995-11-21         Salt, Tom, et al.           31         5506975         1996-04-09         Onodera, Osama           32         5555385         1996-09-10         Hough, Roger E., et al.           33         5564040	16	3996449	1976-12-07	Attanasio, Clement R., ét al.	
19         4403283         1983-09-06         Myntti, Jon N., et al.           20         4419724         1983-12-06         Branigin, Michael H., et al.           21         4430709         1984-02-07         Schleupen, Richard, et al.           22         4802084         1989-01-31         Ikegaya, Hiroshi, et al.           23         4975836         1990-12-04         Hirosawa, Toshio, et al.           24         5187802         1993-02-16         Inoue, Taro, et al.           25         5230069         1993-02-16         Brelsford, David P., et al.           26         5237616         1993-08-17         Abraham, Dennis G., et al.           27         5287363         1994-02-15         Wolf, Paul I., et al.           28         5295251         1994-03-15         Wakui, Fujio, et al.           29         5361375         1994-11-01         Ogi, Yoshifumi           30         5469557         1995-11-21         Salt, Tom, et al.           31         5506975         1996-04-09         Onodera, Osama           32         5555385         1996-09-10         Hough, Roger E., et al.           34         5560013         1996-09-24         Scalzi, Casper A., et al.           35         5564040 <t< td=""><td>17</td><td>4207609</td><td>1980-06-10</td><td>Luiz, Fernando A., et al.</td></t<>	17	4207609	1980-06-10	Luiz, Fernando A., et al.	
20         4419724         1983-12-06         Branigin, Michael H., et al.           21         4430709         1984-02-07         Schleupen, Richard, et al.           22         4802084         1989-01-31         Ikegaya, Hiroshi, et al.           23         4975836         1990-12-04         Hirosawa, Toshio, et al.           24         5187802         1993-02-16         Inoue, Taro, et al.           25         5230069         1993-02-16         Brelsford, David P., et al.           26         5237616         1993-08-17         Abraham, Dennis G., et al.           27         5287363         1994-02-15         Wolf, Paul I., et al.           28         5295251         1994-03-15         Wakui, Fujio, et al.           29         5361375         1994-11-01         Ogi, Yoshifumi           30         5469557         1995-11-21         Salt, Tom, et al.           31         5506975         1996-04-09         Onodera, Osama           32         5555385         1996-09-10         Hough, Roger E., et al.           34         5560013         1996-09-24         Scalzi, Casper A., et al.           35         5564040         1996-10-08         Kubala, Jeffrey P.           36         5574936         19	18	4319233	1982-03-09	Matsuoka, Michihiro, et al.	
21       4430709       1984-02-07       Schleupen, Richard, et al.         22       4802084       1989-01-31       Ikegaya, Hiroshi, et al.         23       4975836       1990-12-04       Hirosawa, Toshio, et al.         24       5187802       1993-02-16       Inoue, Taro, et al.         25       5230069       1993-02-16       Brelsford, David P., et al.         26       5237616       1993-08-17       Abraham, Dennis G., et al.         27       5287363       1994-02-15       Wolf, Paul I., et al.         28       5295251       1994-03-15       Wakui, Fujio, et al.         29       5361375       1994-11-01       Ogi, Yoshifumi         30       5469557       1995-11-21       Salt, Tom, et al.         31       5506975       1996-04-09       Onodera, Osama         32       5555385       1996-09-10       Osisek, Damian L.         33       5555414       1996-09-10       Hough, Roger E., et al.         34       5560013       1996-09-24       Scalzi, Casper A., et al.         35       5564040       1996-10-08       Kubala, Jeffrey P.         36       5574936       1996-11-12       Ryba, Edward G., et al.         37       5582717       1996	19	4403283	1983-09-06	Myntti, Jon N., et al.	
22         4802084         1989-01-31         Ikegaya, Hiroshi, et al.           23         4975836         1990-12-04         Hirosawa, Toshio, et al.           24         5187802         1993-02-16         Inoue, Taro, et al.           25         5230069         1993-02-16         Brelsford, David P., et al.           26         5237616         1993-08-17         Abraham, Dennis G., et al.           27         5287363         1994-02-15         Wolf, Paul I., et al.           28         5295251         1994-03-15         Wakui, Fujio, et al.           29         5361375         1994-11-01         Ogi, Yoshifumi           30         5469557         1995-11-21         Salt, Tom, et al.           31         5506975         1996-04-09         Onodera, Osama           32         5555385         1996-09-10         Osisek, Damian L.           33         5555414         1996-09-10         Hough, Roger E., et al.           34         5560013         1996-09-24         Scalzi, Casper A., et al.           35         5564040         1996-10-08         Kubala, Jeffrey P.           36         5574936         1996-11-12         Ryba, Edward G., et al.           37         5582717         1996-12-10	20	4419724	1983-12-06	Branigin, Michael H., et al.	
23         4975836         1990-12-04         Hirosawa, Toshio , et al.           24         5187802         1993-02-16         Inoue, Taro , et al.           25         5230069         1993-02-16         Brelsford, David P., et al.           26         5237616         1993-08-17         Abraham, Dennis G., et al.           27         5287363         1994-02-15         Wolf, Paul I., et al.           28         5295251         1994-03-15         Wakui, Fujio , et al.           29         5361375         1994-11-01         Ogi, Yoshifumi           30         5469557         1995-11-21         Salt, Tom , et al.           31         5506975         1996-04-09         Onodera, Osama           32         5555385         1996-09-10         Hough, Roger E., et al.           33         5555414         1996-09-10         Hough, Roger E., et al.           34         5560013         1996-09-24         Scalzi, Casper A., et al.           35         5564040         1996-10-08         Kubala, Jeffrey P.           36         5574936         1996-11-12         Ryba, Edward G., et al.           37         5582717         1996-12-10         Di Santo, Dennis E.           38         5604805         1997-02-18<	21	4430709	1984-02-07	Schleupen, Richard , et al.	
24         5187802         1993-02-16         Inoue, Taro, et al.           25         5230069         1993-02-16         Brelsford, David P., et al.           26         5237616         1993-08-17         Abraham, Dennis G., et al.           27         5287363         1994-02-15         Wolf, Paul I., et al.           28         5295251         1994-03-15         Wakui, Fujio, et al.           29         5361375         1994-11-01         Ogi, Yoshifumi           30         5469557         1995-11-21         Salt, Tom, et al.           31         5506975         1996-04-09         Onodera, Osama           32         5555385         1996-09-10         Osisek, Damian L.           33         5555414         1996-09-10         Hough, Roger E., et al.           34         5560013         1996-09-24         Scalzi, Casper A., et al.           35         5564040         1996-10-08         Kubala, Jeffrey P.           36         5574936         1996-11-12         Ryba, Edward G., et al.           37         5582717         1996-12-10         Di Santo, Dennis E.           38         5604805         1997-02-18         Brands, Stefanus A.	22	4802084	1989-01-31	lkegaya, Hiroshi , et al.	
25         5230069         1993-02-16         Brelsford, David P., et al.           26         5237616         1993-08-17         Abraham, Dennis G., et al.           27         5287363         1994-02-15         Wolf, Paul I., et al.           28         5295251         1994-03-15         Wakui, Fujio, et al.           29         5361375         1994-11-01         Ogi, Yoshifumi           30         5469557         1995-11-21         Salt, Tom, et al.           31         5506975         1996-04-09         Onodera, Osama           32         5555385         1996-09-10         Osisek, Damian L.           33         5555414         1996-09-10         Hough, Roger E., et al.           34         5560013         1996-09-24         Scalzi, Casper A., et al.           35         5564040         1996-10-08         Kubala, Jeffrey P.           36         5574936         1996-11-12         Ryba, Edward G., et al.           37         5582717         1996-12-10         Di Santo, Dennis E.           38         5604805         1997-02-18         Brands, Stefanus A.	23	4975836	1990-12-04	Hirosawa, Toshio , et al.	
26         5237616         1993-08-17         Abraham, Dennis G., et al.           27         5287363         1994-02-15         Wolf, Paul I., et al.           28         5295251         1994-03-15         Wakui, Fujio, et al.           29         5361375         1994-11-01         Ogi, Yoshifumi           30         5469557         1995-11-21         Salt, Tom, et al.           31         5506975         1996-04-09         Onodera, Osama           32         5555385         1996-09-10         Hough, Roger E., et al.           33         5555414         1996-09-10         Hough, Roger E., et al.           34         5560013         1996-09-24         Scalzi, Casper A., et al.           35         5564040         1996-10-08         Kubala, Jeffrey P.           36         5574936         1996-11-12         Ryba, Edward G., et al.           37         5582717         1996-12-10         Di Santo, Dennis E.           38         5604805         1997-02-18         Brands, Stefanus A.	24	5187802	1993-02-16	Inoue, Taro , et al.	
27         5287363         1994-02-15         Wolf, Paul I., et al.           28         5295251         1994-03-15         Wakui, Fujio , et al.           29         5361375         1994-11-01         Ogi, Yoshifumi           30         5469557         1995-11-21         Salt, Tom , et al.           31         5506975         1996-04-09         Onodera, Osama           32         5555385         1996-09-10         Osisek, Damian L.           33         5555414         1996-09-10         Hough, Roger E., et al.           34         5560013         1996-09-24         Scalzi, Casper A., et al.           35         5564040         1996-10-08         Kubala, Jeffrey P.           36         5574936         1996-11-12         Ryba, Edward G., et al.           37         5582717         1996-12-10         Di Santo, Dennis E.           38         5604805         1997-02-18         Brands, Stefanus A.	25	5230069	1993-02-16	Brelsford, David P., et al.	
28         5295251         1994-03-15         Wakui, Fujio , et al.           29         5361375         1994-11-01         Ogi, Yoshifumi           30         5469557         1995-11-21         Salt, Tom , et al.           31         5506975         1996-04-09         Onodera, Osama           32         5555385         1996-09-10         Osisek, Damian L.           33         5555414         1996-09-10         Hough, Roger E., et al.           34         5560013         1996-09-24         Scalzi, Casper A., et al.           35         5564040         1996-10-08         Kubala, Jeffrey P.           36         5574936         1996-11-12         Ryba, Edward G., et al.           37         5582717         1996-12-10         Di Santo, Dennis E.           38         5604805         1997-02-18         Brands, Stefanus A.	26	5237616	1993-08-17	Abraham, Dennis G., et al.	
29       5361375       1994-11-01       Ogi, Yoshifumi         30       5469557       1995-11-21       Salt, Tom, et al.         31       5506975       1996-04-09       Onodera, Osama         32       5555385       1996-09-10       Osisek, Damian L.         33       5555414       1996-09-10       Hough, Roger E., et al.         34       5560013       1996-09-24       Scalzi, Casper A., et al.         35       5564040       1996-10-08       Kubala, Jeffrey P.         36       5574936       1996-11-12       Ryba, Edward G., et al.         37       5582717       1996-12-10       Di Santo, Dennis E.         38       5604805       1997-02-18       Brands, Stefanus A.	27	5287363	1994-02-15	Wolf, Paul I., et al.	
30       5469557       1995-11-21       Salt, Tom, et al.         31       5506975       1996-04-09       Onodera, Osama         32       5555385       1996-09-10       Osisek, Damian L.         33       5555414       1996-09-10       Hough, Roger E., et al.         34       5560013       1996-09-24       Scalzi, Casper A., et al.         35       5564040       1996-10-08       Kubala, Jeffrey P.         36       5574936       1996-11-12       Ryba, Edward G., et al.         37       5582717       1996-12-10       Di Santo, Dennis E.         38       5604805       1997-02-18       Brands, Stefanus A.	28	5295251	1994-03-15	Wakui, Fujio , et al.	
31       5506975       1996-04-09       Onodera, Osama         32       5555385       1996-09-10       Osisek, Damian L.         33       5555414       1996-09-10       Hough, Roger E., et al.         34       5560013       1996-09-24       Scalzi, Casper A., et al.         35       5564040       1996-10-08       Kubala, Jeffrey P.         36       5574936       1996-11-12       Ryba, Edward G., et al.         37       5582717       1996-12-10       Di Santo, Dennis E.         38       5604805       1997-02-18       Brands, Stefanus A.	29	5361375	1994-11-01	Ogi, Yoshifumi	
32       5555385       1996-09-10       Osisek, Damian L.         33       5555414       1996-09-10       Hough, Roger E., et al.         34       5560013       1996-09-24       Scalzi, Casper A., et al.         35       5564040       1996-10-08       Kubala, Jeffrey P.         36       5574936       1996-11-12       Ryba, Edward G., et al.         37       5582717       1996-12-10       Di Santo, Dennis E.         38       5604805       1997-02-18       Brands, Stefanus A.	30	5469557	1995-11-21	Salt, Tom , et al.	
33       5555414       1996-09-10       Hough, Roger E., et al.         34       5560013       1996-09-24       Scalzi, Casper A., et al.         35       5564040       1996-10-08       Kubala, Jeffrey P.         36       5574936       1996-11-12       Ryba, Edward G., et al.         37       5582717       1996-12-10       Di Santo, Dennis E.         38       5604805       1997-02-18       Brands, Stefanus A.	31	5506975	1996-04-09	Onodera, Osama	
34         5560013         1996-09-24         Scalzi, Casper A., et al.           35         5564040         1996-10-08         Kubala, Jeffrey P.           36         5574936         1996-11-12         Ryba, Edward G., et al.           37         5582717         1996-12-10         Di Santo, Dennis E.           38         5604805         1997-02-18         Brands, Stefanus A.	32	5555385	1996-09-10	Osisek, Damian L.	
35         5564040         1996-10-08         Kubala, Jeffrey P.           36         5574936         1996-11-12         Ryba, Edward G., et al.           37         5582717         1996-12-10         Di Santo, Dennis E.           38         5604805         1997-02-18         Brands, Stefanus A.	33	5555414	1996-09-10	Hough, Roger E., et al.	
36         5574936         1996-11-12         Ryba, Edward G., et al.           37         5582717         1996-12-10         Di Santo, Dennis E.           38         5604805         1997-02-18         Brands, Stefanus A.	34	5560013	1996-09-24	Scalzi, Casper A., et al.	
37         5582717         1996-12-10         Di Santo, Dennis E.           38         5604805         1997-02-18         Brands, Stefanus A.	35	5564040	1996-10-08	Kubala, Jeffrey P.	
38 5604805 1997-02-18 Brands, Stefanus A.	36	5574936	1996-11-12	Ryba, Edward G., et al.	
	37	5582717	1996-12-10	Di Santo, Dennis E.	
39 5633929 1997-05-27 Kaliski, Jr., Burton S.	38	5604805	1997-02-18	Brands, Stefanus A.	
	39	5633929	1997-05-27	Kaliski, Jr., Burton S.	

APP\_ID=10683542 Page 2 of 4

40	5668971	1997-11-16	Neufeld, E. D.
41	5684948	1997-11-04	Johnson, James S., et al.
42	5706469	1998-01-06	Kobayashi, Souichi
43	5740178	1998-04-14	Jacks, Steven A., et al.
44	5752046	1998-05-12	Oprescu, Florin , et al.
45	5809546	1998-09-15	Greenstein, Paul G., et al.
46	5825880	1998-10-20	Sudia, Frank W., et al.
47	5919257	1999-07-06	Trostle, Jonathan
48	5935242	1999-08-10	Madany, Peter W., et al.
49	5935247	1999-08-10	Pai, Hsin-Ying , et al.
50	5956408	1999-09-21	Arnold, Todd W.
51	5978475	1999-11-02	Schneier, Bruce , et al.
52	6035374	2000-03-07	Panwar, Ramesh , et al.
53	6044478	2000-03-28	Green, Daniel W.
54	6088262	2000-07-11	Nasu, Hiroaki
55	6093213	2000-07-25	Favor, John G., et al.
56	6108644	2000-08-22	Goldschlag, David M., et al.
57	6131166	2000-10-10	Wong-Isley, Becky
58	6173417	2001-01-09	Merrill, John W.
59	6175924	2001-01-16	Arnold, Todd W.
60	6188257	2001-02-13	Buer, Mark L.
61	6199152	2001-03-06	Kelly, Edmund J., et al.
62	6275933	2001-08-14	Fine, Michael , et al.
63	6282650	2001-08-28	Davis, Derek L.
64	6327652	2001-12-04	England, Paul, et al.
65	6378068	2002-04-23	Foster, Mark J.
66	6397379	2002-05-28	Yates, Jr., John S., et al.
67	6529909	2003-03-04	Bowman-Amuah, Michel K.
68	6560627	2003-05-06	McDonald, Michael F., et al.
69	6609199	2003-08-19	DeTreville, John
70	6615278	2003-09-02	Curtis, Bryce A.
71	6651171	2003-11-18	England, Paul , et al.
72	6678825	2004-01-13	Ellison, Carl M., et al.
73	6684326	2004-01-27	Cromer, Daryl C., et al.

## Signature

Examiner Name	Date	

APP\_ID=10683542 Page 4 of 4